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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,577	08/19/2003	Tetsuya Yoshida	Q76401	2953

23373 7590 02/27/2006  
SUGHRUE MION, PLLC  
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SUITE 800  
WASHINGTON, DC 20037

EXAMINER
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WOODWARD, ANA LUCRECIA

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

5

**Office Action Summary**

Application No.

10/642,577

Applicant(s)

YOSHIDA ET AL.

Examiner

Ana L. Woodward

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on December 6, 2005, February 6, 2006
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,648,433 (Scott) or U.S. 6,114,472 (Matsuki et al) each in view of U.S. 5,747,560 (Christiani et al) and EP 1199333.

Scott and Matsuki et al each disclose visually clear bends comprising polyetherimides, reading on applicants' polyetherimide, and polyesters of 2-6 naphthalene dicarboxylic acid, reading on applicants' polymer containing polyethylene naphthalate units (see Scott abstract, Matsuki et al examples 14-22). Each reference discloses and suggests the addition of fillers, such as clay, and other additives into their transparent blends (Scott at column 7, lines 9-12 and Matsuki et al at column 9, lines 47-57). Polyester copolymers additionally containing terephthalic acid units, as per present claims 3 and 4, are disclosed by Scott at column 5, lines 48-50 and Matsuki et al at column 4, lines 30-31.

Scott and Matsuki et al differ in essence from the present claims in not expressly disclosing a swellable lamellar silicate as the inorganic filler. Swellable layered silicates (clay minerals) intercalated with organo-onium ions such as ammonium and phosphonium ions, are well known fillers for polymers and blends thereof, inclusive of polyetherimides and

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poly(ethylene 1,5-naphthalate) per Christiani et al (column 17, lines 25, 35, 66). As per Christiani et al, swellable layered silicates impart favorable interactions with the polymers resulting in improved mechanical properties (column 23, lines 22-45). Accordingly, it would have been obvious to one having ordinary skill in the art to have added a swellable layered silicate, as per Christiani et al for its expected additive effect into the compositions of Scott and Matsuki et al with the reasonable expectation of success. This is particularly so since Scott and Matsuki et al each expressly discloses that silicate (clay) fillers can be additionally incorporated into their respective transparent compositions.

With respect to 5-11, the addition of up to 70 percent by weight of inorganic fillers for the purpose of imparting heat resistance and strength to compositions comprising polyetherimide and semi-aromatic polyester would have been obvious to one having ordinary skill in the art as per EP '333 (pages 10-11). Accordingly, absent evidence of unusual or unexpected results relative to applicants' specific filler content, no patentability can be seen therein.

As to claims 17-20, the additional use of stabilizers is within the scope of the disclosures of Scott and Matsuki et al. Accordingly, absent evidence of unusual or unexpected results, no patentability can be seen in the presently claimed invention.

### ***Response to Arguments***

3. Applicant's arguments filed December 06, 2005 have been fully considered but they are not persuasive.

Swellable lamellar silicates organized by an organo-onium ion organizing agent are well known in the art as evidenced by Christiani et al. As per Christiani et al, swellable layered silicates impart favorable interactions with the polymers resulting in improved mechanical

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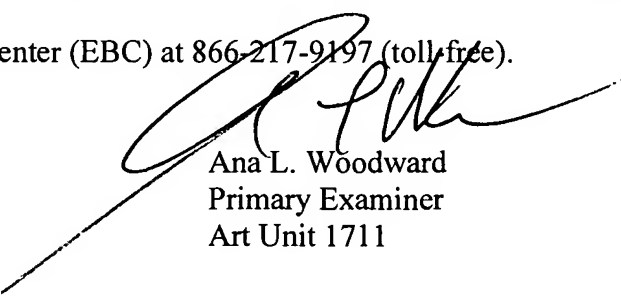
properties (column 23, lines 22-45). Accordingly, it would have been obvious to one having ordinary skill in the art to have added a swellable layered silicate, as per Christiani et al for its expected additive effect into the compositions of Scott and Matsuki et al with the reasonable expectation of success. This is particularly so since Scott and Matsuki et al each expressly discloses that silicate fillers can be additionally incorporated into their respective transparent compositions.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana L. Woodward whose telephone number is (571) 272-1082. The examiner can normally be reached on Monday-Friday (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ana L. Woodward  
Primary Examiner  
Art Unit 1711

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